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09/802,792	03/08/2001	Paul A. Hosier	D/A1102	8347

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SOHN, SEUNG C	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 14

Application Number: 09/802,792
Filing Date: March 08, 2001
Appellant(s): HOSIER ET AL.

Robert Hutter
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 12, 2003.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is substantially correct. A correct statement of the status of the claims is as follows:

Claims 1-3, 6-10 and 20-30 are rejected.

Claims 11-19 are allowed.

Claims 31-32 and 34-37 are withdrawn from consideration as not directed to the elected Species.

Claims 4, 5 and 33 have been canceled.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is substantially correct, except claims 11-19 are now allowed.

The following is an examiner's statement of reasons for allowance:

Claims 11-19 are allowable because the prior art (Koizumi et al.) fails to disclose or make obvious, either singly or in combination, an imaging apparatus having a photosensitive chip comprising, in addition to the other recited features of the claim, the light-transmissive planar layer extending over the groove portion.

(7) Grouping of Claims

The rejection of claims 1-3, 6-10 and 20-30 stand or fall together because appellant's brief does not include reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,698,892	Koizumi et al.	12-1997
5,604,362	Jedlicka et al.	02-1997

(10) Grounds of Rejection

The following ground(s) of rejection, set forth in prior Office Action, Paper No. 9, are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6-10, 20, 22-24 and 26-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Koizumi et al. (Patent No. US 5,698,892).

Referring to claims 1, Koizumi et al. shows in Fig. 11 the following elements of Applicant's claim:

a) a main surface (11, i.e., substrate), having at least one photosite (91, i.e., photoelectric conversion portion) thereon, the main surface defining an edge (each side of scribe region 92) (Col. 1, lines 36-42);

b) a groove (formed by the scribe region 92 on the surface) portion defined at the edge (Col. 2, lines 46-47 and claim 3);

c) a light-transmissive planar layer (Fig. 11C, transparent resist) disposed over the main surface (11), the planar layer forming a planar surface substantially parallel with the main surface (11), the planar layer extending over the groove portion (Col. 2, lines 57-58); and

d) a light-transmissive filtering layer (Fig. 11D: 96, 98 and 99) disposed over the planar layer (Col. 2, lines 59-61).

Referring to claim 6, Koizumi discloses that the planar layer is substantially transmissive of visible light (i.e., transparent resin) (Col. 2, line 64), and the filtering layer is transmissive of a predetermined range (red, blue and green) of wavelengths of light (Col. 2, lines 59-60).

Referring to claims 7 and 27, Koizumi discloses that the filtering layer comprises a first portion (96) transmissive of a first predetermined range of

wavelengths (red) of light and a second portion (99) transmissive of a second predetermined range of wavelengths (blue) of light (Col. 2, lines 59).

Referring to claim 8, Koizumi discloses that the first portion (96) is disposed over a first photosite (the photoelectric conversion portion below 96) and the second portion (98) is disposed over a second photosite (the photoelectric conversion portion below 98) (Col. 2, line 59).

Referring to claims 9 and 28-29, Koizumi discloses that the first portion (96, i.e., R) is disposed over a first set of photosites (photoelectric conversion portions below Rs) and the second portion (99, i.e. B) is disposed over a second set of photosites (photoelectric conversion portions below Bs) (Col. 2, line 59-60).

Referring to claims 10 and 30, Koizumi discloses a ridge (each side of photoelectric conversion portion) defined on the main surface between the photosite and the groove portion (Col. 2, lines 48).

Referring to claim 20, Koizumi et al. shows in Fig. 11 the following elements of Applicant's claim:

a) a first chip area (the right side from scribe region 92) defined in a main surface (11, i.e., substrate) of the wafer, the first chip area including structure related to a first photosite (91, i.e., photoelectric conversion portion) (Col. 1, line 17-19);

b) a groove (formed by the scribe region 92 on the surface) defined in the wafer, the groove defining at least one edge (each side of scribe region 92) of the first chip area (Col. 2, lines 46-47 and claim 3); and

c) a light-transmissive planar layer (Fig. 11C, transparent resist) disposed over the main surface (11), the planar layer forming a planar surface substantially parallel with the main surface (11), the planar layer extending over the groove portion (Col. 2, lines 57-58).

Referring to claim 22, Koizumi shows in Fig. 11C the planar layer (transparent resist) further disposed over the first photosite (96, i.e., R).

Referring to claim 23, Koizumi shows in Fig. 11C a filtering layer (96, 98 and 99) disposed over the planar layer.

Referring to claims 24 and 26, Koizumi shows in Fig. 10 the filtering layer extending over the first photosite and over the groove (Col. 1, lines 43-53).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koizumi et al. (Patent No. US 5,698,892).

Referring to claims 2 and 21, Koizumi et al. discloses as above, but is silent that the planar layer comprises acrylic. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide acrylic planar

layer in the device of Koizumi et al since acrylic is notoriously well used for cast and molded parts or as coatings and adhesives.

5. Claims 3 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koizumi et al. (Patent No. US 5,698,892) in view of Jedlicka et al. (Patent No. US 5,604,362).

Referring to claims 3 and 25, Koizumi et al. discloses as above, but is silent that the filtering layer comprises acrylic. Jedlicka et al. discloses that the most common substance for filter layer is acrylic (Col. 2, lines 1-3). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide acrylic filter layer in the device of Koizumi et al. since acrylic is the most common substance for filter layer to effectively receive a desired primary color.

(11) Response to Argument

ISSUE I

The appellant argues that the independent claims at issue relate to either an already-diced chip or to a wafer suitable for immediate dicing into a chip. However, the examiner respectfully disagrees the argument. The independent claims do not claim the limitations of already-diced chip or a wafer suitable for immediate dicing into a chip. Also, the wording of "a wafer suitable for immediate dicing into a chip" is ambiguous and confusing. How early is "immediate"? The Figs. 11C and 11D of Koizumi et al. clearly show the claimed limitations of a wafer having a lot of chips before dicing. It should be

noted that it is the claims that define the claimed invention, and it is the claims, not the specification, that are anticipated or unpatentable.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

SCS

Seung C. Sohn
Patent Examiner
November 13, 2003

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